

to be able to explore the area more thoroughly to plot the species' distribution, assess its numbers and identify possible threats.

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### Some notes on Black Ducks *Anas sparsa*

Black Ducks *Anas sparsa* of the race *leucostigma* occur on forested mountain streams from southern Sudan (Nikolaus 1989), through the highlands of Ethiopia (Urban & Brown 1971) south to Tanzania (Britton 1980). They may occur in isolated forests as on Ol Doinyo Orok in southern Kenya (Bennun *et al.* 1986) as well as in larger forests, as on the Mau watershed (Betts 1962).

Although typically birds of forested fast-flowing highland rivers, Black Ducks often occur on small dams in the vicinity of streams and may wander to seasonal pools or rivers at lower elevations (Britton 1980). Lewis & Pomeroy (1989) give one striking example of this involving a pair seen by J.S.S. Beesley at about 600 m on the Tiva River in Tsavo National Park (East), while Stuart & Simkin (1981) recorded one at 500 m on the Dodwe River near Amani, East Usambaras, northeastern Tanzania. Black Ducks may also occur well away from forest on moorland streams and tarns and on rivers flowing through open grassland, as in the Aberdares and Kinangop plateau in central Kenya (pers. obs.), and even on polluted, often mainly treeless rivers as flow through the city of Addis Ababa in Ethiopia (Pain *et al.* 1975).

Brown *et al.* (1982) described the habits of Black Ducks as well known, but the following observations, mainly from the Aberdares and Gatamayu Forest in Kenya and from rivers in Addis Ababa, provide some additional information, and contrast with some other records.

### Feeding behaviour and food

Brown *et al.* (1982) noted that Black Ducks feed by dabbling, head-dipping and upending, to remove weeds from river beds, and that the diet consists mainly of vegetable matter and chironomid larvae and pupae, with occasional small fish.

On well-vegetated moorland pools in the Aberdares and on a small dam near Kericho in western Kenya, dabbling and upending were the most frequently observed method, but on rivers, birds were also often seen diving. They did this in grossly polluted rivers

in Addis Ababa as well as in deep pools on clear mountain rivers. On these fast-flowing rivers there is little in the way of aquatic vegetation, other than algae and bryophytes, on which the duck could feed. Here they may probe amongst rocks and turn over stones on the river bed, probably taking invertebrates such as caddis larvae and crustaceans. Blue Ducks *Hymenolaimus malacorhynchos*, which occupy a similar niche on rivers in New Zealand, take small caddis larvae and probably diatoms and algae (M. Williams, *in litt.*, Kear & Burton 1971). On rivers in Addis Ababa, notably the Bulbula River, the water is grey-brown organic 'soup', low in oxygen, and with no macrophytic aquatic plants. It does contain much organic matter and algae, and abundant chironomid larvae in the mud on the river bed, all of which may form food for Black Ducks. A family of Black Ducks observed here from 17–26 January 1990 fed mainly by dabbling and head-dipping, but diving was occasionally observed and the male often sifted through mud at the river edge, presumably taking chironomid larvae.

### Behaviour

Black Ducks are generally shy, submerging or swimming quickly to the bank when disturbed and hiding under an overhang or in streamside vegetation, or swimming rapidly away from the intruder. Less often they take to the wing and fly away low over the river. They do become habituated, though, to the presence of people and a pair observed on the Bulbula River in January 1990 allowed observations from only 20–30 m.

The pair on the Bulbula had well grown young. The female, throughout two days (17 and 26 January) of observation, from dawn to near dusk, and for an hour's observation on 25 January, remained on the same 10-m stretch of river with her six young. She was constantly alert and if danger threatened (an approaching dog or human) she shepherded the ducklings to the cover of a thick clump of water bistort *Polygonum* sp. Here they spent much of the day, emerging at intervals to upend, dabble or dive near the female. She remained on the river within a metre of the bistort clump. She spent little time feeding (less than 10 per cent), instead constantly looking around and guarding the young. A brief nodding greeting ceremony between the male and female was observed. Once she moved about 5 m from the ducklings to attack a Black Kite *Milvus migrans* which had landed by the river. By contrast, the male, recognizable by the greater amount of pink on the upper mandible, spent most of his time feeding, or preening on a nearby shoal. He moved 2–3 m from his mate, but never further away, and was in constant attendance throughout the periods of observation. In November 1974 to January 1975 males had also been seen during the day within 10 m of females and young on the River Akaki in Addis Ababa. This behaviour is unlike that described by Brown *et al.* (1982) who noted that males often join females and young at dusk to roost but rarely accompany them during the day.

### Breeding

Brown *et al.* (1982) gave dates of laying in Ethiopia as January to July, and in Kenya as December to February, June to July and October, these months being mainly outside the rains. The Black Duck on the Bulbula River in Addis Ababa had six well grown young in January. They were almost the same size as the adults but their flight feathers were not yet fully grown. On 17 January no white spots were visible on the ducklings, which had barred flanks and under tail coverts, but on 26 January spots were evident on the upperparts of the ducklings' plumage. They had no down which is shed after 40–70 d

(Brown *et al.* 1982) but did not have fully developed plumage, which occurs at 86 d; their age from their size was estimated, therefore, to be between 60 and 80 d. Allowing 28 d for incubation and 1 d for each egg laid, this pair probably started laying in October, just at the end of the long rains. The clutch size is 4–8 (Brown *et al.* 1982). To produce six well grown young suggests few predators or a high degree of parental care.

Broods seen on the River Akaki in Ethiopia in 1974 and 1975 also indicated laying dates from October to December (Pain *et al.* 1975), after the end of the long rains, and before the laying dates given for Ethiopia by Brown *et al.*

The behaviour of a pair of Black Ducks on a moorland pool on the Aberdares in December 1989 indicated that they may have had a nest. One adult was observed upending on the pool. It then cautiously moved to the moorland at the edge, looked around, climbed out on to the bank and disappeared into a clump of heather. After two to three minutes, it, or a different bird, emerged from the heather and moved out on to the pool. The ground below the heather was then checked for a nest and after a minute spent searching, a second duck was flushed from the vegetation. No nest was found but there were numerous grass tussocks and clumps of heather in or under which a nest could have been. Further searching was abandoned for fear of causing the duck to desert.

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## A commensal feeding association between African Spoonbills *Platalea alba* and Great White Egrets *Egretta alba* in Tanzania

On 2 December 1979, while observing birds at the edge of the swamp in Katavi National Park near Mpanda in southwestern Tanzania, I noted four African Spoonbills *Platalea alba* alighting close to a Great White Egret *Egretta alba*. The egret was